



Attention of : Ms. R. Rodriguez

Analysis Report

Report number : 13201/00026221.1/L/19 Composite prep date : 2019-05-09
Main Object : GREAT CRISTOBAL Place of sampling : Puerto Internacional Punta Rincon
Report Date : 2019-05-10 Date received : 2019-05-09
Date of issue : 2019-05-10 Date completed : 2019-05-10
Sample object : 9002 Sample number : 8169274
Sample type : Composite
Sample submitted as : ULSD
Marked : Shore tank 9002 single tank composite - after discharge

NAME	METHOD	UNIT	SPECS		RESULT
			Min	Max	
Gravity API at 60 °F	ASTM D 4052	°API	32.0		35.8
Appearance ¹	ASTM D 4176	-		B & C	N/A
Color ASTM ¹	ASTM D 1500	-		2.5	N/A
Water and Sediment	ASTM D 2709	vol %		0.05	0
Flash point (PM) procedure A	ASTM D 93	°C	60		68.0
Sulphur (S)	ASTM D 5453	mg/kg		15	8.7
Ash Content	ASTM D 482	mass %		0.01	<0.001
Micro Carbon Residue (10% bottom)	ASTM D 4530 / D 86	mass %		0.30	<0.10
Copper Strip Corrosion (3 hrs / 50 °C)	ASTM D 130	-		2	1a
Kinematic Viscosity at 40°C	ASTM D 445	mm²/s	1.9	4.1	3.079
Cetane Index	ASTM D 976	-	45		49.9
Distillation	ASTM D 86				
10% Recovered		°C		Report	214.1
50% Recovered		°C		Report	273.0
90% Recovered		°C	282	338	335.0
Final boiling point		°C		Report	360.0
Residue		vol %		2	1.5
Loss		vol %		2	1.1
Lubricity Test at 60 °C (Wear Scar Diameter)	ASTM D 6079	µm		520	460
Conductivity at 25°C	ASTM D 2624	pS/m	25		216
Biodiesel	ASTM D 7371	vol %		0.1	<0.100

Remarks:

1 Dyed

Signed by: Everner Jimenez - Laboratory Manager/Assistant Mgr
Issued by: Core Laboratories Panama, S.A.
Place and date of issue: Panama City - 2019-05-10

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